



Material Safety Data Sheet

OXYGEN, COMPRESSED (O2)

Infosafe™ FMOU5 **Issue Date** May 2009 **Status** ISSUED by BS:
No. AIRLIQUI 1.9.21

Not classified as hazardous

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

Product Name OXYGEN, COMPRESSED (O2)

Product Use Sustains life, supports combustion. Used in steel making and with a fuel gas for welding, cutting and heating applications.

Company Name Air Liquide Australia Limited (ABN 57 004 385 782)

Address Level 9, 380 St. Kilda Road Melbourne
Victoria 3004

Emergency Tel. 1800 812588 (24hr)

Telephone Number/Fax Tel: (03) 9697 9888
Fax: (03) 9690 7107

Other Names	Name	Product Code
	OXYGEN	
	LASAL 2003	

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Oxygen	7782-44-7	99.5-100 %

3. HAZARDS IDENTIFICATION

Chronic Effects Exposure at normal or elevated pressure may cause severe thickening and scarring of lung tissues.

Inhalation Breathing high concentrations of this gas may cause symptoms of hyperoxia including cramps, nausea, dizziness, hypothermia, amblyopia, respiratory difficulties, brady cardia, fainting spells and convulsions capable of leading to death.

Ingestion Not applicable to gases.

Skin Not irritating to the skin.

Eye Not irritating to the eye.

4. FIRST AID MEASURES

Inhalation Prompt medical attention is mandatory in all cases of overexposure to oxygen. Seek medical attention.
If inhaled, remove affected person from contaminated area.
Keep at rest until recovered.

Ingestion Not applicable to gases.

Skin Seek medical attention if any effects of exposure persist, or immediately if extending from physical injury.

Eye Seek medical attention if any effects of exposure persist, or immediately if extending from physical injury.

First Aid Facilities Eyewash and normal washroom facilities recommended.

Advice to Doctor Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media Use appropriate media to extinguish source of surrounding fire.

Specific Hazards Non-flammable product but vigorously supports combustion of materials which will not usually burn in air. Concentrations of 25% oxygen will significantly increase the rate of combustion for some materials. Fires may start easily due to the reduced temperatures required to ignite materials in oxygen enriched atmospheres.

Hazardous Combustion Products Not applicable

Precautions in connection with Fire Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Fight fire from safe location. This product should be prevented from entering drains and watercourses.

Flash Point Not applicable

Ignition Temperature Not available

Flammable Limits UEL Not applicable

Flammable Limits LEL Not applicable

Flammability Non flammable

6. ACCIDENTAL RELEASE MEASURES

Remove all sources of ignition. Increase ventilation. Evacuate all unnecessary personnel. Use self-contained breathing apparatus (S.C.B.A) and full protective clothing to minimise exposure. Allow gas to vent safely to atmosphere, preferably in well ventilated, remote location. Wear air-supplied mask. Check for leaks using pressure drop test or soapy water on joints and outlets. Shut cylinder valve to stop leak if possible and safe to do so.

7. HANDLING AND STORAGE

Handling Use away from all sources of heat and ignition. Avoid skin and eye contact and breathing of gas. Post 'NO SMOKING' signs in area of use. Avoid release of gas into workplace air. Never smoke or carry out hot work in oxygen rich atmosphere. Never wear clothing saturated with oxygen. Use smallest possible amounts in designated areas with adequate ventilation. Have emergency equipment (for fires, leaks, etc.) readily

available. Only experienced and properly instructed personnel should handle compressed gases. Cylinder contents and identification labels provided by the supplier must not be removed or defaced. Colour coding should not be the only criterion used for content identification.

Storage Protect containers against physical damage. Store in a cool, dry, well-ventilated place, low fire risk area. Protect from extremes of temperature and weather. Do not allow any part of a cylinder to be exposed above 55°C. Storage areas should be kept clean and free from flammable and combustible materials. Ensure that containers are properly vented to prevent build up of pressure.
Refer to commonwealth, state and territory legislation for requirements, which affect compressed gas storage and transport.

Packaging CYLINDER COLOUR: Black.
CYLINDER VALVE OUTLET: AS2473 type 10.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards No exposure standards have been established for the mixture by the National Occupational Health & Safety Commission (NOHSC). However, over-exposure to some chemicals may result in enhancement of pre-existing adverse medical conditions and/or allergic reactions and should be kept to the least possible levels.
As with all chemicals, exposure should be kept to the lowest possible levels.

Respiratory Protection If engineering controls are not effective in controlling airborne exposure then self-contained breathing apparatus (S.C.B.A) should be used.

Eye Protection Safety glasses with side shields or chemical goggles should be worn. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection Wear gloves of impervious material. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Footwear Personnel engaged in the movement of gas cylinders shall be provided with safety footwear.

Body Protection Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled. Industrial

clothing should conform to the specifications detailed in AS/NZS 2919: Industrial clothing.

Eng. Controls Not required for conditions of use. Ensure ventilation is adequate to maintain oxygen concentration between 18% and 21%.

**Biological
Limit Values** No biological limits allocated.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Colourless, odourless and tasteless.

Melting Point Not available

Boiling Point -183°C at 101.32 kPa

**Solubility in
Water** 0.0489 m³/kg

**Specific
Gravity (H₂O=1)** Not available

pH Value Not applicable

**Vapour Density
(Air=1)** 1.105 at 0°C 101.3 kPa (Air = 1)

Density Density of gas (101.3 Kpa, 15°C): 1.35 kg/m³
Relative Density at 15°C: 1.105 (Air=1)

Flash Point Not applicable

Flammability Non flammable

**Ignition
Temperature** Not available

**Flammable
Limits LEL** Not applicable

**Flammable
Limits UEL** Not applicable

**Molecular
Weight** 32.00

**Other
Information** Critical temperature: -118.6°C.

10. STABILITY AND REACTIVITY

Stability Stable under normal conditions of storage and handling.

**Hazardous
Polymerization** Will not occur

**Materials to
Avoid** Combustible materials

**Hazardous
Decomposition
Products** Not applicable

**Conditions to
Avoid** Extremes of temperature and direct sunlight.

11. TOXICOLOGICAL INFORMATION

**Toxicology
Information** Not available

Inhalation Breathing high concentrations of this gas may cause symptoms of hyperoxia including cramps, nausea, dizziness, hypothermia, ambylopia, respiratory difficulties, brady cardia, fainting spells and convulsions capable of leading to death.

Ingestion Not applicable to gases.

Skin Not irritating to the skin.

Eye Not irritating to the eye.

Chronic Effects Exposure at normal or elevated pressure may cause severe thickening and scarring of lung tissues.

12. ECOLOGICAL INFORMATION

**Environment
Protection** Not applicable

Mobility Not available

**Persistence /
Degradability** Not available

Ecotoxicity Not available

13. DISPOSAL CONSIDERATIONS

Dispose of waste according to applicable local and national

regulations.

14. TRANSPORT INFORMATION

This material is classified as a Class 2.2 (Compressed Oxygen) subsidiary Class 5.1 (Oxidising Agents) Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Class 2.3 Dangerous Goods are incompatible in a placard load with any of the following:

- Class 1, Explosives
- Class 2.1, Flammable Gases
- Class 2.3, Toxic Gases
- Class 3, Flammable Liquids
- Class 4.1, Flammable Solids
- Class 4.2, Spontaneously Combustible Substances
- Class 4.3, Dangerous When Wet Substances
- Class 5.2, Organic Peroxides
- Class 6, Toxic and Infectious Substances, if the Class 6 substance is a fire risk substance
- Class 7, Radioactive Substances
- Class 8, Corrosive Substances
- Class 9, Miscellaneous Dangerous Goods, if the Class 9 substance is a fire risk substance

U.N. Number 1072

Proper Shipping

Name OXYGEN, COMPRESSED

DG Class 2.2

Sub.Risk 5.1

Hazchem Code 2S

Packaging

Method P200

Packing Group

EPG Number 2C6

IERG Number 11

15. REGULATORY INFORMATION

Not classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.
Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

Risk Phrase**Poisons****Schedule** Not Scheduled**Packaging &
Labelling**CYLINDER COLOUR: Black.
CYLINDER VALVE OUTLET: AS2473 type 10.

16. OTHER INFORMATION

**Contact
Person/Point**

24 HOUR EMERGENCY CONTACT: The Operator: 1800 812 588

Regional Offices:

Victoria

40 Bunnett Street, North Sunshine 3020. Tel. (03) 9290 1100
Fax (03) 9290 1199

New South Wales

43-47 Pine Road, Fairfield 2165. Tel. (02) 9892 9777 Fax (02)
9892 14544 Kullara Close, Beresfield. 2322. Tel (02) 4949 1700 Fax (02)
4949 1750Lot 5, Shellharbour Road, Port Kembla 2505. Tel. (02) 4274
4044 Fax (02) 4276 3879

South Australia

164 Philip Highway, Elizabeth 5112. Tel. (08) 8209 3600 Fax
(08) 8255 9885

Queensland

759 Progress Road, Wacol 4076. Tel. (07) 3246 6363 Fax (07)
3271 2589Ingham Road, Cnr. Dundee Street,
Bohle, Townsville, 4818

Tel. (07) 4774 8276 Fax (07) 4774 8313

Featherstone Street, Parkhurst

Rockhampton, 4702. Tel. (07) 4936 1066 Fax (07) 4936 1024

68 Bunda Street, Cairns 4870. Tel. (07) 4031 1566 Fax (07)
4051 4293

Tasmania

11 Windsor Street, Invermay 7248. Tel. (03) 6334 9666 Fax (03)
6334 9600

Air Liquide W.A. Pty Ltd

A.B.N. 52 008 694 166

Wesfarmers Energy Building, Campus Drive (off Murdoch Drive),
Murdoch, WA 6150

Tel. (08) 9312 9111 Fax (08) 9313 8108

AIR LIQUIDE AUSTRALIA LIMITED

A.B.N. 57 004 385 782

Head Office:

380 St. Kilda Road, Melbourne, Victoria 3004, Australia. Tel.
(03) 9697 9888 Fax (03) 9690 7107www.airliquide.com.au**SDS History**

Date Reviewed: May 2009

Supersedes: July 2004

**Poisons
Schedule** Not Scheduled

**Molecular
Weight** 32.00

End of MSDS

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